THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 1529.38.011

September 23, 2022

Brad Platt
Federal Aviation Administration
Environmental Cleanup Program
222 W 7th Ave Box #14
Anchorage, AK 99513

Re: Decision Document: No Further Action Required
Beach Barge Connection and Building 105 UST 44-A-4 Areas of Concern

Dear Brad Platt

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Beach Barge Connection and Building 105 UST 44-A-3 areas of concern (AOCs) at the Federal Aviation Administration (FAA) Station on Level Island, approximately 26 miles west of Wrangell, AK. Based on the information provided to date, it has been determined that the contaminant concentrations remaining at these AOCs do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless information becomes available that indicates residual contaminants may pose an unacceptable risk.

This No Further Action determination is based on the administrative record for the FAA Level Island contaminated site. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
FAA Level Island Station
Big Level Island
~26mi west of Wrangell, AK

Name and Mailing Address of Contact Party:
Lisa Ebbs
Federal Aviation Administration
222 W 7th Ave Box#14
Anchorage AK, 99513

DEC Site Identifiers:
File No.: 1529.38.011
Hazard ID.: 1457
Areas of Concern:
Beach Barge Connection
Building 105 UST 44-A-3

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background
Big Level Island is located between Kupreanof and Zarembo Islands in southeast Alaska. The Level Island FAA station was established in 1964 and includes an omni directional radar, antennas, support structures, a road system, dock and unpermitted landfill. Several contaminated site AOCs have been discovered at the station including but not limited to the AOCs covered by this decision document:

Beach Barge Connection
The Beach Barge Connection was used to transfer diesel fuel from barges to a former tank farm near the shop building through a buried 4-inch pipeline. The Beach Barge Connection and pipeline were decommissioned in 1995. During decommissioning historic releases were discovered which had impacted soils near the connection point at the shore.

Building 105 UST 44-A-3
The underground storage tank (UST) 44-A-3 was a 1,000-gallon unregulated buried heating oil tank located at the former living quarters Building 105. The UST was removed in 1995 and heating oil contamination was discovered reaching groundwater.

Contaminants of Concern
During the site characterization and cleanup activities at the Level Island station, samples were collected from soil, groundwater, and surface water and analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), total aromatic hydrocarbons (TAH) and total aqueous hydrocarbons (TAqH), polychlorinated biphenyls (PCBs), dioxins, and metals. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at the Beach Barge Connection and Building 105 UST:

- DRO

Cleanup Levels
The most restrictive Method Two soil cleanup level applies at this site. Diesel range organics were detected in soil above the migration to groundwater (MTGW) cleanup levels established in 18 AAC 75.341 (d), Table B2.

The applicable groundwater cleanup levels are established in 18 AAC 75.345 Table C.

Table 1 – Approved Cleanup Levels

Contaminant	Soil MTGW (mg/kg)	Soil Ingestion/Inhalation (mg/kg)	Groundwater (µg/L)
DRO	230	8,250/12,500	1,500

mg/kg = milligrams per kilogram
µg/L = micrograms per liter

Characterization and Cleanup Activities
Site characterization and site cleanup activities happening at these AOCs in 1995, 2009, and 2021 are summarized below:

Beach Barge Connection
The barge connection infrastructure was decommissioned in 1995 and diesel contamination was discovered beneath the connection point near the shore. A limited excavation was performed resulting in total of 28 cubic yards of diesel contaminated soil being disposed of off-site. Contaminated soil was noted to remain at a depth of 7 feet below ground surface (ft. bgs) but these soils were inaccessible due to excavation sloughing. One soil sample collected from the excavation contained DRO at 500 mg/kg, in excess of the cleanup level. A groundwater sample collected from a temporary well point was analyzed for VOCs and was below the ADEC action levels.

In 2009 ultra-violet optical screening tool (UVOST) screening was used to evaluate the horizontal extent of the contaminated area. Contamination was found to be present from 7 ft. bgs down to bedrock at 10-13ft. Three analytical samples were collected from areas with the highest field screening results and DRO concentrations were 2,140 mg/kg, 2,790 mg/kg, and 13,800 mg/kg, in excess of the cleanup level. The contaminated area was estimated to be an approximately 20 ft. by 20 ft. overlaying bedrock near the intertidal zone.

During remedial actions in 2021 the entire Beach Barge Connection area was excavated down to bedrock. Starting at 7 ft. bgs, soil stained blue with weathered diesel was discovered. Excavation and segregation of contaminated soil continued vertically until bedrock was encountered at which point the excavation footprint was expanded until field screening and visual cues indicated that all contaminated material had been removed. The final excavation was approximately 50 ft. by 40 ft. and extended to 11 ft. bgs; a total of 137 cubic yards of contaminated material was excavated. The excavation base had groundwater infiltrating from the east and sea water infiltrating from the west. The uncovered bedrock was solid and did not show abundant cracks or weathering. Six soil samples collected from the excavation limits were below the cleanup levels for all analytes, confirming that all contamination had been removed. A porewater sample was collected on the west side of the excavation was below the groundwater cleanup levels and surface water criteria.

Building 105 UST 44-A-3
The Building 105 1,000-gallon diesel UST was removed in 1995, approximately 85 cubic yards of petroleum contaminated soil was removed and disposed of off-site along with the tank and piping. Excavation extended to groundwater where some a minor sheen was noted. The final excavation was approximately 15 ft. by 30ft. and extended to 11 ft. bgs. Six soil samples were collected from the excavation base. Three samples exceeded the cleanup level with DRO concentrations of 530 mg/kg, 750 mg/kg, and 3,800 mg/kg. The other three samples on the excavation sidewalls were clean. Three groundwater samples were collected from temporary sampling points on the down-gradient edge of the excavation, these samples were analyzed for VOCs and were below the ADEC action levels.

In 2009 UVOST screening was used to evaluate the horizontal extent of the contaminated area near the former UST. Based on UVOST results diesel contamination was present below the groundwater table at depths of 10 to 13 ft. bgs. Confirmation analytical samples were collected from two areas with the highest screening results, these samples came back at 1,860 mg/kg and 2,190 mg/kg.

Monitoring well QMW-01 was installed down-gradient of the tank and was co-located with the highest DRO concentration soil sample. A groundwater sample collected from QMW-01 contained DRO at 866 µg/L, below the cleanup level.

In 2021 monitoring well QMW-01 was sampled again and, this time it did not contain detectable concentrations of any contaminants of concern.

Cumulative Risk Evaluation
Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations at the Beach Barge Connection and Building 105 UST meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation
Following investigation and cleanup at these AOCs, exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De-Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface at the Building 105 UST, but is below ingestion cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface at the Building 105 UST, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Remaining contamination is not expected to impact indoor air receptors.
Groundwater Ingestion	De-Minimis Exposure	Groundwater and pore-water samples collected from both AOCs have not been found to contain contaminants in excess of the cleanup levels.
Surface Water Ingestion	Pathway Incomplete	The Sumner Strait is located near both AOCs, but groundwater and porewater samples were below the groundwater cleanup levels and surface water criteria.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contamination is not remaining in an area where wild or farmed foods are likely to be impacted.

Exposure to Ecological Receptors	Pathway Incomplete	Contamination is not remaining in an area where ecological receptors are likely to be impacted.

Notes to Table 2: "De-Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. "Pathway Incomplete" means that in ADEC's judgment contamination has no potential to contact receptors.

ADEC Decision

Diesel range organic contamination in excess of the migration to groundwater cleanup level remains at the Building 105 UST AOC but has been shown not to be impacting groundwater. Soils at both AOCs are below the ingestion and inhalation cleanup levels, and groundwater at both AOCs are below CULs. The Beach Barge Connection and Building 105 UST will receive a "No Further Action" designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC approval in accordance with 18 AAC 75.325(i). A "site" as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)

2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Informal Reviews and Adjudicatory Hearings

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page https://dec.alaska.gov/commish/review-guidance/ for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

If you have questions about this decision document, please feel free to contact me at (907) 334-5939 or email at michael.hooper@alaska.gov.

Sincerely,

Michael Hooper
2022.09.23 13:27:16
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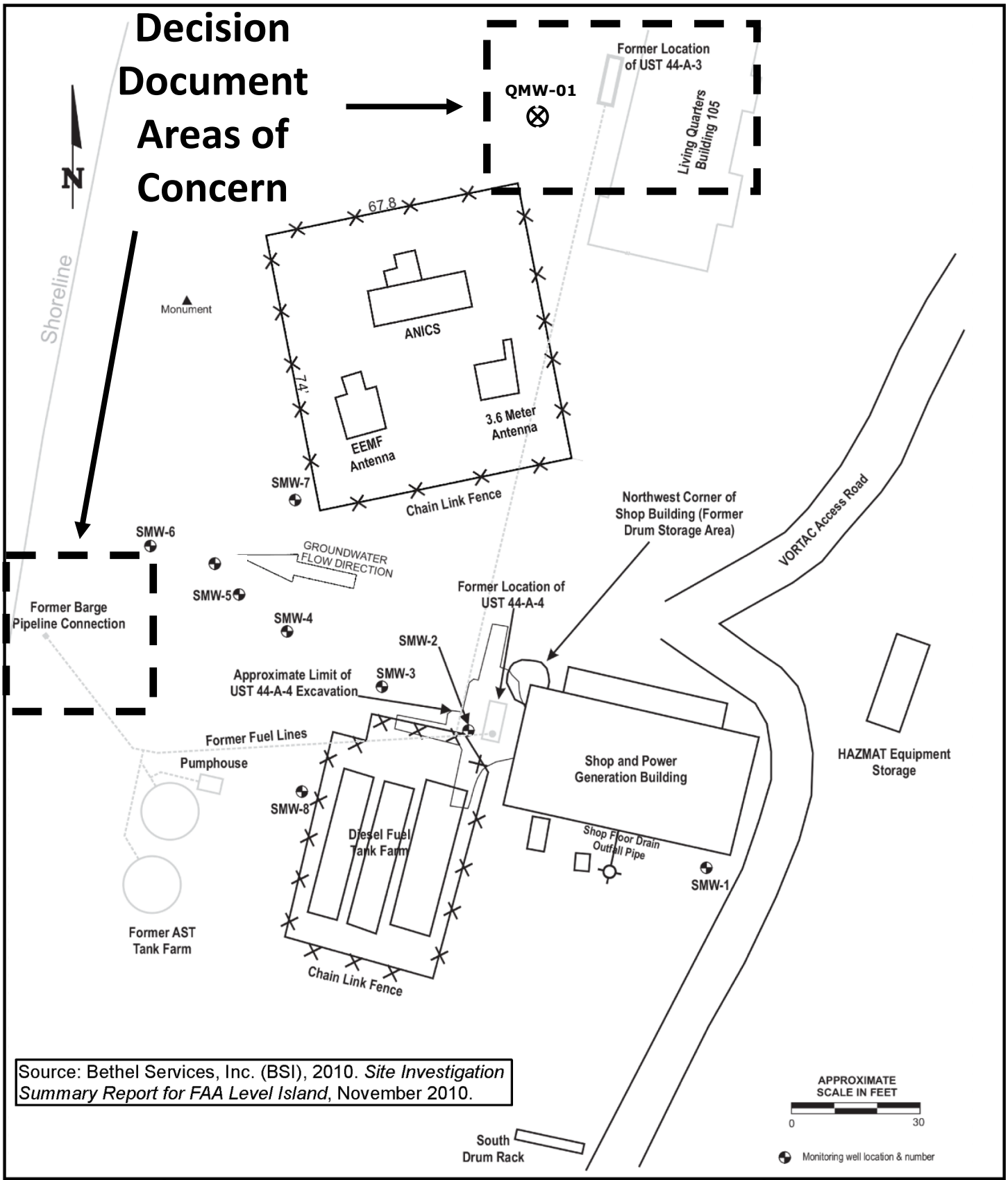
Michael Hooper
Project Manager

Enclosure: Site Figure Showing AOC locations.

cc: Spill Prevention and Response, Cost Recovery Unit
Bill O'Connell, DEC



Source: Bethel Services, Inc. (BSI), 2010. *Site Investigation Summary Report for FAA Level Island*, November 2010.

An ANC 8(a) Brice Environmental
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LEVEL ISLAND RELEASE INVESTIGATION AND REMEDIAL ACTION WORK PLAN
FAA LEVEL ISLAND STATION, BIG LEVEL ISLAND, ALASKA

SHOP FACILITY SITE PLAN AND MONITORING WELLS SET

DATE: 3/18/2020
P.M.: M.O.
DRAWN: J.C.

FIGURE: **12**